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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,032	01/13/2004	William Freeman	15436.31.1.1	3252

22913 7590 09/23/2005

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EXAMINER

BUEKER, RICHARD R

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/757,032

Applicant(s)

FREEMAN ET AL.

Examiner

Richard Bueker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 17-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Burberry (2004/0067302).

Burberry (see figs. 1, 2a and 2b) discloses an apparatus for deposition of material on a substrate including a target, a substrate to receive material from the target and a laser for ablating the target to deposit material onto the substrate. Burberry teaches (para. 21) that the target can desirably comprise a flexible donor support element (equivalent to applicants' claimed "target substrate") that is a fiber reinforced plastic foil. Such a fiber reinforced plastic foil is inherently or at least obviously a "matrix configuration" as claimed by applicant. A material to be evaporated (equivalent to applicants' claimed "target material") is supported on a surface of Burberry's donor support. Regarding claim 5, the target surface and substrate of Duignan are in contact with each other

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because the definition of "contact" is not limited to only physical contact. Regarding claim 10, it is noted that claim 10 recites an interface rather than an interface layer.

Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burberry (2004/0067302) taken in view of Tang (5,937,272). Tang discloses an apparatus for deposition of material on a substrate including a target, a substrate to receive material from the target and a laser for ablating the target to deposit material onto the substrate that is analogous to Burberry's apparatus. Tang teaches (see fig. 4 and col. 8, lines 16-29) that it is desirable to provide an insulating layer 28 (equivalent to applicants' claimed interface layer) between the donor support element 129 and the material to be evaporated contained in layer 123. It would have been obvious to provide Burberry's donor support element with an insulating layer of the type taught by Tang to minimize heat loss as taught by Tang.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burberry (2004/0067302) taken in view of Opower (5,725,914). Opower (col. 3, lines 34-39) teaches that the target can be in physical contact with the substrate as in claim 5, and that the target can be partially transparent as in claim 9 (col. 14, lines 19-22), and it would have been obvious to use Burberry's donor material source in the manner taught by Opower.

Claims 6 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burberry (2004/0067302) taken in view of Duignan (WO 00/72224). Duignan (Fig. 5, for example) discloses an apparatus for deposition of material on a substrate including a target, a substrate to receive material from the target and a laser for ablating

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the target to deposit material onto the substrate. Duignan (page 20, lines 15-17) teaches that the distance between the substrate and target should not exceed 25 microns which is less than 1 mm as recited in claim 6. Duignan teaches (pages 27-30) that it is desirable to house the target in a cassette similar to videotape cassettes. Such a cassette inherently must include a window opening as recited in claim 16 in order to provide a path for the laser beam to reach the target. It would have been obvious to use a cassette of the type taught by Duignan to support the flexible donor support element of Burberry, because Duignan teaches that a cassette is a desirably convenient way of supporting a flexible laser transfer donor support.

Claims 1 and 3-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Grande (5,851,709). Grande (see figs. 1-4) discloses an apparatus for deposition of material on a substrate including a target, a substrate to receive material from the target and a laser for ablating the target to deposit material onto the substrate. Grande teaches that the target can include a target substrate that has a matrix configuration of holes, which is inherently or at least obviously a "matrix configuration" as claimed by applicant. A material to be evaporated (equivalent to applicants' claimed "target material") is supported on a surface of Grande donor support.

Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grande (5,851,709) taken in view of Tang (5,937,272). Tang discloses an apparatus for deposition of material on a substrate including a target, a substrate to receive material from the target and a laser for ablating the target to deposit material onto the substrate

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that is analogous to Grande's apparatus. Tang teaches (see fig. 4 and col. 8, lines 16-29) that it is desirable to provide an insulating layer 28 (equivalent to applicants' claimed interface layer) between the donor support element 129 and the material to be evaporated contained in layer 123. It would have been obvious to provide Grande's donor support element with an insulating layer of the type taught by Tang to minimize heat loss as taught by Tang.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grande (5,851,709) taken in view of Opower (5,725,914). Opower (col. 3, lines 34-39) teaches that the target can be in physical contact with the substrate as in claim 5, and that the target can be partially transparent as in claim 9 (col. 14, lines 19-22), and it would have been obvious to use Grande's donor material source in the manner taught by Opower.

Applicants' arguments have been considered but are not pertinent to the new grounds of rejection.

The dictionary definition of "matrix" has been cited of interest.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

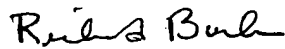
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Richard Bueker  
Primary Examiner  
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